

A new species of *Ione* Lindl. (Orchidaceae) from Arunachal Pradesh, India

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Abstract

The concept of treating the orchid genus *Ione* Lindl. separate from *Sunipia* Lindl. is supported. A new species of Orchidaceae viz., *Ione arunachalense* Nageswara Rao is described and an identification key is provided for the 6 species of *Ione* found in Arunachal Pradesh.

INTRODUCTION

Lindley established two genera in the family Orchidaceae viz. *Sunipia* and *Ione* in 1833 and 1853 respectively based on the structure of pollinarium. According to him, the former has pollinia with two free stipes with 2 separate viscidia while the latter has pollinia with 2 stipes which are fused at apex and attached to a single common viscidium.

Later Hooker (1890) accepted *Sunipia* Lindl. as a separate genus but denied the genus status to *Ione* Lindl. and transferred all the species of *Ione* to the genus *Bulbophyllum* Thou. King and Pantling (1898) while describing the orchids of Sikkim recognised the species of *Sunipia* and *Ione* as quite distinct from *Bulbophyllum*, but however considered the former two as congeneric and surprisingly preferred to retain the name *Ione* as a valid name over earlier published name *Sunipia* and considered the latter as only a "legendary genus." This has been followed by Seidenfaden (1969) in his monographic work on the genus *Ione* Lindl.

Subsequently, Hunt (1971) recognised the priority of *Sunipia* over *Ione* and transferred all the species of *Ione* to *Sunipia*, treating *Ione* as a synonym. This was followed by later orchid taxonomists like Pradhan (1979), Seidenfaden (1986) *et al.*

Now, of late, orchidologists like Garay *et al.* (1994) and Seidenfaden (1995) have realized Lindley's old concept and recognised *Ione* and *Sunipia* as two distinct genera.

During the course of critical study on the species of *Ione* Lindl. in Arunachal Pradesh, a specimen from Tale Valley in Subansiri district was found to be quite distinct from the so far known species of the genus and hence it is described here as a new ones.

A. Nageswara Rao

Ione arunachalense Nageswara Rao, *sp. nov.* (Fig. 1)

Ione minor Seidenf. affinis, sed differt foliis petiolaris flore singulari, sepalis lateralibus liberis, labello lobo intermedio acuminato.

Type: India, Arunachal Pradesh, Lower Subansiri district, Tale Valley (1200 m), *Ingalhalli & Benedict 20350* (Holo-Orchid Herbarium, Tipi).

Small epiphytic herb. Rhizome ca. 1 mm thick, slender. Pseudobulbs 6-9 x 5-8 mm, ovoid, ca. 2 cm apart on the rhizome with slender roots below, 1-leaved. Leaves ca. 3 x 0.5 cm, oblong, subacute, with a distinct petiole of ca. 7 mm long. Scäpe ca. 2 cm long, arising from the base of the pseudobulb. Flower solitary, ca. 2 cm long, crimson coloured. Bract ca. 6 x 1 mm, lanceolate, acute, shorter than the pedicellate ovary. Sepals ca. 10 x 2.5 mm, subequal, lanceolate, acute, 3-nerved; lateral sepals free. Petals ca. 3 x 3 mm, ovate-suborbicular, minutely apiculate, 1-nerved. Lip about 9 mm long, with a median narrow ridge on the disc from base to the middle; lateral lobes 3 x 5 mm, auricular, entire; midlobe ca. 6 mm long, linear, acuminate. Column very short, ca. 1 mm long. Anther small, 2-celled. Pollinia 4 in 2 groups, each group with a short, linear stipe and a gland at apex. Rostellum with 2 processes in front. Ovary with pedicel ca. 12 mm long, pale green.

Flowering: June

Distribution: Known only from lower Subansiri district, Tale Valley (1200 m), in wet evergreen subtropical forest.

Ione arunachalense Nageswara Rao *sp. nov.*, is very close to *I. minor* Seidenf. which is an endemic species of Thailand but differs from it in having petioled leaves, single-flowered inflorescence, free lateral sepals and linear-acuminate midlobe of lip.

With the present new species the genus *Ione* is represented in Arunachal Pradesh by six species which may be identified by the following key:

1. Lateral sepals free.
 2. Flowers solitary.
 3. Scape less than 1 cm long; flowers large; sepals 2 cm long *I. jainii*
 3. Scape more than 1 cm long; flowers small; sepals 1 cm long *I. arunachalense*
 2. Flowers 2 or 3 per inflorescence *I. andersonii*

Ione arunachalense sp. nov. (Orchidaceae)

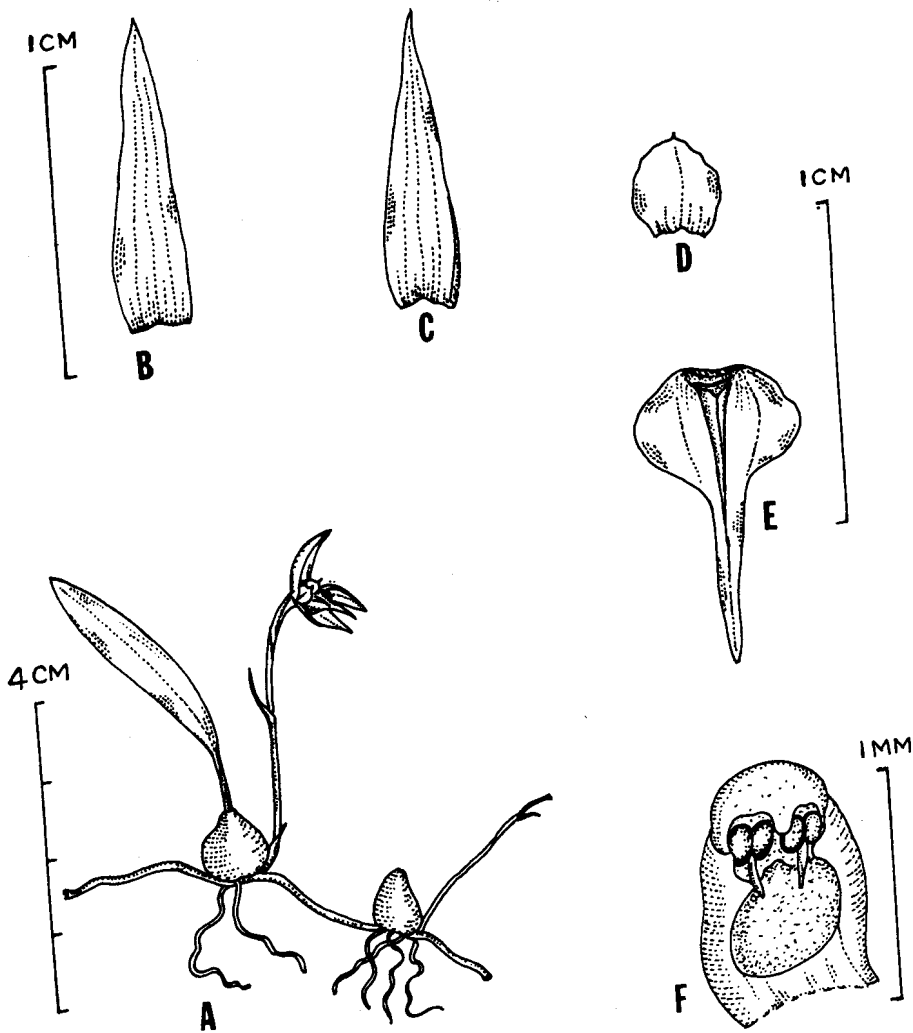


Fig. 1. *Ione arunachalense* Nageswara Rao, sp. nov. A. Habit; B. Dorsal sepal; C. Lateral sepal; D. Petal; E. Lip; F. Column with pollinia *in situ* (Drawn from the holotype-Ingalthalli et Benedict 20350).

A. Nageswara Rao

1. Lateral sepals connate or coherent along the inner margins.
4. Petals with entire margins; lip broader at distal half with serrate margins *I. bicolor*
4. Petals with serrate margins; lip broader at basal half and narrowed at apex.
5. Inflorescence upto 40 cm long; flowers drooping, bracts scarious, petals suborbicular *I. cirrhata*
5. Inflorescence upto 10 cm long; flowers erect, bracts not scarious, petals oblong *I. candida*

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